

## O D S 12v T-Series Installation INSTRUCTIONS



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### ODS - T-Series Tubular Motor

ODS - T20 INSTALL INSTRUCTIONS Version 03 - MAY 2008.

PART NUMBER 15.300.013

**Ensure that the shutter is within the lifting zone of the ODS - T-Series Tubular Motor.**

## 1. FIT THE CROWN AND DRIVE WHEEL ADAPTORS TO THE MOTOR.

**Fit the appropriate drive wheel for the axle being used. These are available separately.**

### For a 50mm Round Axle

Use a Drive Wheel Kit (part number 15.175.406).

Fit the yellow drive wheel to the metal drive spindle at the end of the motor.

Use the white retaining clip to attach the drive wheel.

Ensure the pin on the retaining clip is sitting in the hole in the metal drive spindle.

Finish off by fitting the locking screw in the middle of the white retaining clip.

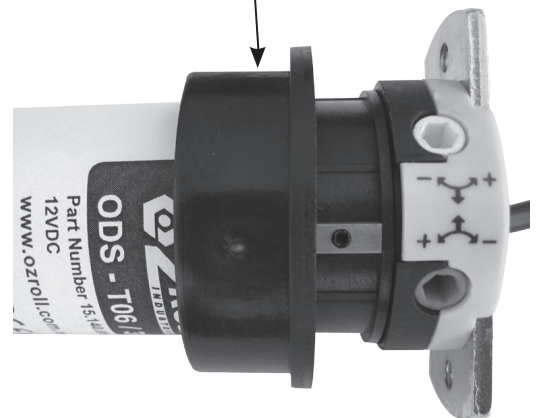
### For a 60mm Octagonal Axle

Use a Drive Kit (part number 15.176.406).

Fit the crown wheel adapter (part number 15.161.415) over the end of the tubular motor and slide it along to the crown wheel. The key in the crown wheel must engage with the slot in the adapter to give a flush fit. (Refer to Figure1) Fit the drive wheel to the metal drive spindle at the end of the motor.

Use the white retaining clip to attach the drive wheel. Ensure the pin on the retaining clip is sitting in the hole in the metal drive spindle. Finish off by fitting the locking screw in the middle of the white retaining clip.

Only for 60mm  
Octagonal Axles Slide  
crown wheel adaptor on



## 2. CUT THE AXLE TO LENGTH.

When cutting the 50mm Round axle make the following allowances:

- Motor End: Allow 20mm gap for the motor or 23mm if using 60mm crown wheel adaptor is used.
- Idler End: Allow 55mm if the Red Axle Insert (11.866.413) is used.
- TOTAL 75mm
- Make your own calculation if the idler end is the old aluminum bearing housing/axle insert.

If a 50mm round axle is to be used it must have a 4mm x 15mm notch cut into it. This is to accommodate the key on the crown wheel. (Refer to Figure 2). Also the drive wheel fitted to the tubular motor must be fixed to the axle by pop rivets. Drill 3 equispaced holes (1/8 or 3.2mm). These must be at a distance of 580±5 mm from the motor end of the axle.

If a 60mm octagonal axle is used the motor and drive wheel will sit inside the axle and provide drive without the need for pop rivets.

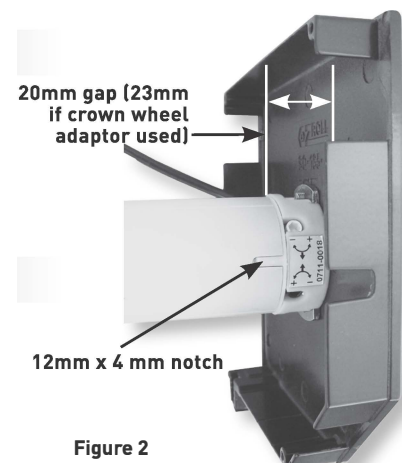


Figure 2

### 3. FIT THE MOTOR TO THE AXLE

The Drive Wheel must be fixed to the axle by pop rivets. There are high and low spots on the drive wheel. The rivets must be positioned so that they penetrate the high spots (refer to figure 2). Do this in at least two positions. Check the orientation of the Drive Wheel as it is slid into the axle to determine the location of the high spots.

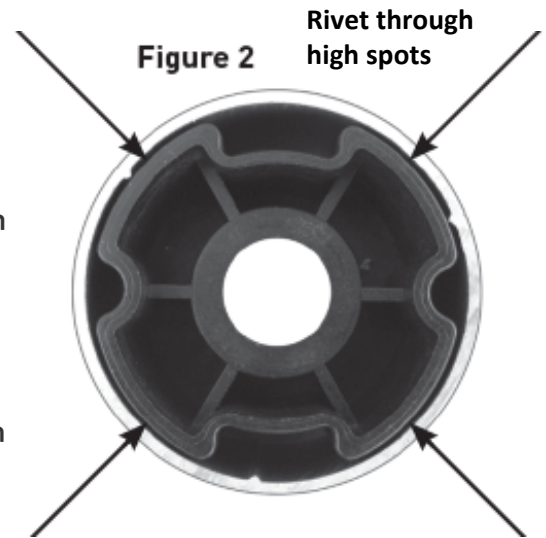
Drill the rivet holes  $53 \pm 2\text{mm}$  from the motor end of the axle.

With the T-Series motor fitted to 50mm round axle there is a gap between the motor tube and axle. Therefore a spring hanger can be fixed in a position above the motor.

Care must be taken when drilling rivet holes to avoid penetrating or damaging the motor tube.

A standard length rivet is too long to fit in the gap between the motor tube and the axle. To rivet near the motor, half pull the rivet up then push the rivet head flush against the axle before completing the riveting operation.

Alternatively a short 3mm length screw with washer can be used.



### 4. FIT THE MOTOR AND AXLE TO THE END PLATE.

The motor must be attached to the endplate using two M5 screws (Part Number 19.900.005, available separately). Drill two screw holes in the endplate with hole centres 48mm apart.

The stub axle, common to standard roller shutter fittings, must support the T20 motor. Fit the motor to the stub axle protruding from the endplate and fix it in position with the screws.

Ensure the installation protects the motor from direct exposure to water.

Specific attention needs to be given to the routing of the power cable to prevent water ingress and to ensure that it doesn't foul with the curtain.

Water ingress may void the warranty.

The routing of the power cable needs to comply with local wiring regulations.

### 5. CONNECT THE MOTOR TO THE CONTROLLER

The T20 is a reverse polarity motor and is supplied with a 2-metre lead. The lead is terminated with female spade connectors (4.8mm x 0.5mm).

When the red lead is connected to a positive (+) terminal and the black lead is connected to a negative (-) terminal the motor will turn in an anticlockwise direction (when viewed from the drive wheel end).

### 6. SETTING THE LIMITS

Use the tool provided to set the up and down limit switches. Refer to the figures below.

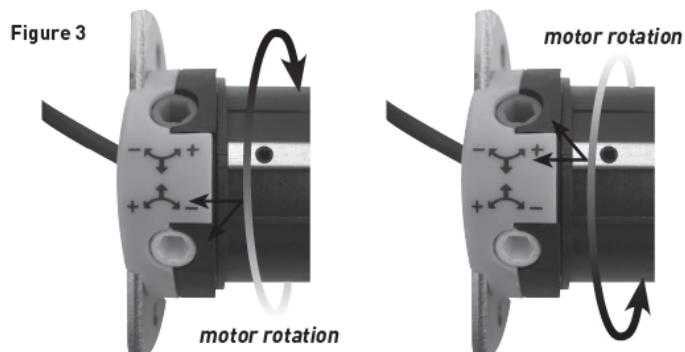
On the limit setting diagram there are two arrows pointing towards each other. These indicate the direction of motor rotation (not the direction of shutter travel).

To adjust the limit switches: 1) Pick the direction of motor rotation that requires adjustment.

2) Adjust the appropriate screw. Plus (+) will add travel. Minus (-) will reduce travel.

**NOTE: The up and down arrows imprinted on the motor do not indicate up and down of the shutter but simply indicate motor direction.**

IF MOTOR IS MOUNTED ON LH SIDE OF HEAD BOX



IF MOTOR IS MOUNTED ON RH SIDE OF HEAD BOX

